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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,730	02/20/2004	Hannu J. Harjuhahto	118803	2124
25944	7590	08/06/2007		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER WOLLSCHLAGER, JEFFREY MICHAEL	
			ART UNIT 1732	PAPER NUMBER
			MAIL DATE 08/06/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/781,730	Applicant(s) HARJUHAHTO ET AL.	
	Examiner Jeff Wollschlager	Art Unit 1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3,5 and 7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,3,5 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

It is noted for the record that Examiner Wollschlager has assumed responsibility for this application from Examiner Eashoo.

Response to Amendment

Applicant's amendment to the claims filed April 23, 2007 has been entered. Claims 1, 4, 6, and 8-13 have been canceled. Claims 2, 3, 5, and 7 are currently amended and under examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2, 3, 5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Knaus (US 5,190,706).

Regarding claim 2, Knaus teaches the claimed process of extruding a thermoplastic material, comprising: introducing a modifying material, such as a blowing agent which intrinsically modifies the viscosity, to a surface portion of a stream of extrudable thermoplastic (5:65-6:55 and Fig. 5); physically separating a core stream and adding the modifying material to a boundary/surface stream which is then recombined with the core stream (Fig. 5).

Regarding claim 3: Knaus teaches the flow diverter is downstream of the primary molten flow from the extruder (5:65-6:55 and Fig. 5), therefore Knaus substantially teaches that the flow streams are recombined "generally near" the extrusion orifice/die.

Regarding claim 5, Knaus teaches the claimed process of extruding a thermoplastic material, comprising: providing a primary/source molten flow of extrudable thermoplastic and advancing it toward an extrusion die/orifice (5:65-6:55 and Figs. 4-5); introducing a modifying material to a surface portion of a stream of extrudable thermoplastic (5:65-6:55 and Fig. 5); diverting a portion of a core stream and adding the modifying material, such as a blowing agent to a boundary/surface stream which is then recombined with or applied to the core stream (Fig. 5).

Regarding claim 7, Knaus teaches the flow diverter is downstream of the primary molten flow from the extruder (5:65-6:55 and Fig. 5), therefore Knaus substantially teaches that the flow streams are recombined "before" the extrusion orifice/die.

Response to Arguments

Applicant's arguments filed April 23, 2007 have been fully considered, but they are not persuasive.

Applicant's arguments appear to be on the following grounds:

1. Knaus does not teach or suggest introducing a viscosity modifying additive to the surface portion of the stream of extrudable material. Modifying the properties for other reasons, with unintentional or tangential effect, does not anticipate the claims

The arguments are not persuasive for the following reason:

1. Knaus teaches taking a common stream of material (51) and separating the stream into two streams. Each of the separate streams at (58) and (64) may have a color, blowing agent and/or thermoplastic added (col. 6, lines 18-20 and col. 6, lines 36-39). The result is that the properties of the streams are different. (col. 7, lines 14-19). For example, claim 6 in Knaus claims adding a blowing agent to the second stream/surface portion. Furthermore, Knaus

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teaches preferentially employing liquid blowing agents (col. 4, lines 4-40). Adding a liquid material to a polymer intrinsically modifies its viscosity. As such, Knaus anticipates the claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Wollschlager whose telephone number is 571-272-8937. The examiner can normally be reached on Monday - Thursday 7:00 - 4:45, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JW

Jeff Wollschlager
Examiner
Art Unit 1732

August 2, 2007


CHRISTINA JOHNSON
SUPERVISORY PATENT EXAMINER
8/1/07